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(54) **METHOD FOR DETECTING A BRAIN REGION WITH NEURODEGENERATIVE CHANGE**

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(58) **Field of Classification Search**
USPC 600/411; 324/318
See application file for complete search history.

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(57) **ABSTRACT**

A computerized method is disclosed for detecting a brain region with neurodegenerative change and also a brain region with vascular change in the brain of a patient and also an imaging arrangement suitable for this. In at least one embodiment, the method includes recording a first data record of the brain via positron emission tomography and a second data record of the brain via magnetic resonance imaging; reconstructing a PET image from the first data record and an MRI image from the second data record; identifying evidence for a brain region with vascular change in the MRI image; segmenting the MRI image into gray matter and white matter; identifying a brain region with neurodegenerative change in the PET image; and superposing the PET image and the segmented MRI image to determine whether the brain region with neurodegenerative change is present in gray matter or in white matter, the recording of the first data record and the second data record
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